

## FIELD HYDRAULIC CONDUCTIVITY TEST (AUGER HOLE METHOD)

Technician \_\_\_\_\_

Date \_\_\_\_\_

Auger Dia. \_\_\_\_\_ ft. Depth (D) \_\_\_\_\_ ft.

Soil Type \_\_\_\_\_

Caving or Sloughing \_\_\_\_\_

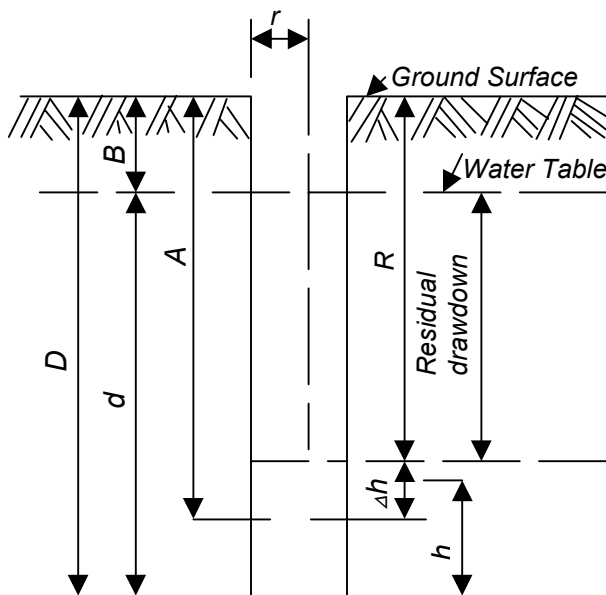
Number of Times Auger Hole Cleaned \_\_\_\_\_

Soil Ph. \_\_\_\_\_

Groundwater Ph. \_\_\_\_\_

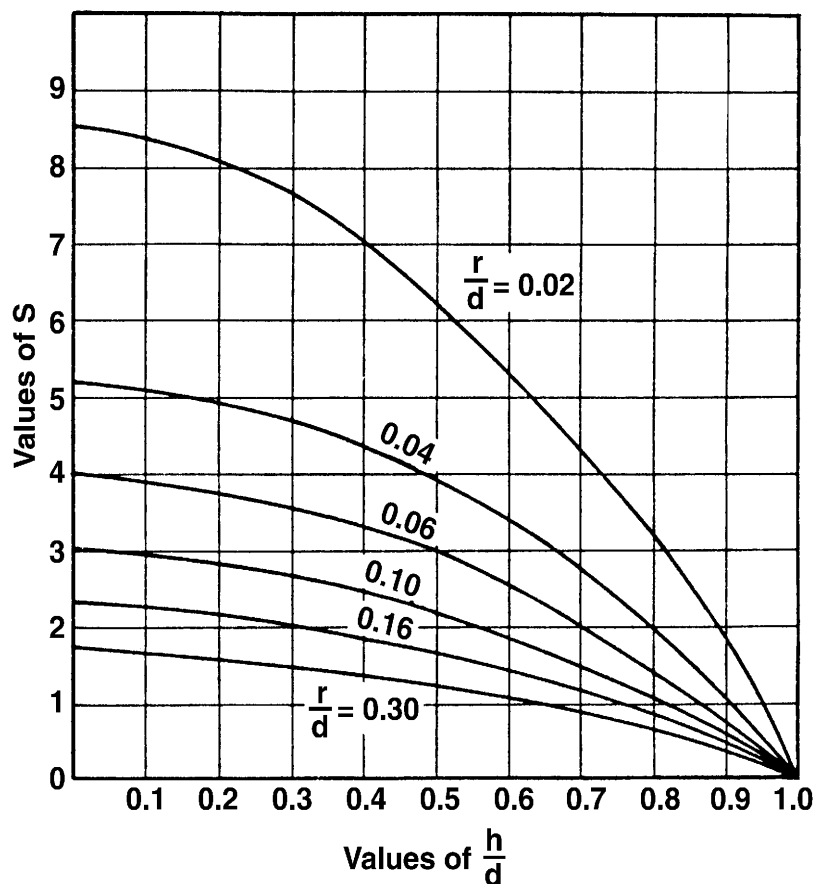
Hole Number \_\_\_\_\_

Location \_\_\_\_\_



Depth in Feet	Unified Classification	Elapsed Time (Min.) Start at ____:____ A.M., P.M.	$\Delta t$ (Min.)	Distance to Water Surface from Reference Point			$\Delta h$	Residual Drawdown
				Before Pumping 8 (ft.)	After Pumping A (ft.)	During Recharging R (ft.)		
			xxx		xxx	xxx	A-R (ft.) xxx	R-B (ft.) xxx
		0.0	xxx	xxx				
1.0								
2.0								
3.0								
4.0								
5.0								
6.0								
7.0								
8.0								
9.0								
10.0								

# **FIELD HYDRAULIC CONDUCTIVITY TEST (AUGER HOLE METHOD)**



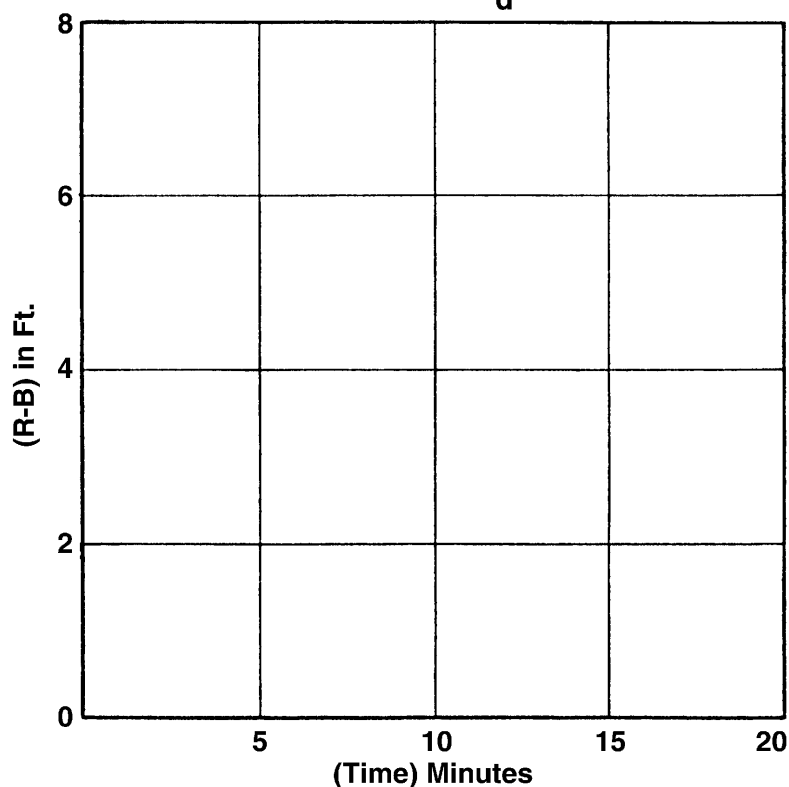
$$HC = 444 \frac{r}{(S)d} \frac{\Delta h}{\Delta t}$$

- ( ) r — Radius of auger hole (ft)
- ( ) D — Depth of auger hole (ft)
- ( ) d — Depth of water in auger hole (ft) (D-B)
- ( )  $\Delta h$  — (A-R) Value just before rate of rise of water becomes non-uniform.
- ( )  $\Delta t$  — Elapsed time corresponding to the  $\Delta h$  value selected (minimum).
- ( ) h — Average depth of water during testing (D-A +  $\Delta h \div 2$ )
- ( ) h/d
- ( ) r/d
- ( ) S — From graph at left

$$HC = 444 \times \text{————} \times \text{————}$$

$$HC = \text{————} \text{ in/hr.}$$

REMARKS



Plot residual drawdown against recharge time for different holes or different depths of hole. The steeper the curve, the higher the conductivity. The break or beginning of flattening of curve gives  $\Delta h$  and  $\Delta t$ .